A METHOD FOR ETCHING A SUBSTRATE AND A DEVICE FORMED USING THE METHOD

ABSTRACT OF THE DISCLOSURE

The present invention provides a method for etching a substrate, a method for forming an integrated circuit, an integrated circuit formed using the method, and an integrated circuit. The method for etching a substrate includes, among other steps, providing a substrate 140 having an aluminum oxide etch stop layer 130 located thereunder, and then etching an opening 150, 155, in the substrate 140 using an etchant comprising carbon oxide, a fluorocarbon, an etch rate modulator, and an inert carrier gas, wherein a flow rate of the carbon oxide is greater than about 80 sccm and the etchant is selective to the aluminum oxide etch stop layer 130. The aluminum oxide etch stop layer may also be used in the back-end of advanced CMOS processes as a via etch stop layer.